Amendments to the Claims

Please amend Claims 1, 10, 19 and 20. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

What is claimed is:

1. (Currently Amended) A computer implemented method for ~~setting an optimum~~ optimizing fuel flow for an engine comprising the steps of:

upon receiving a request for ~~setting the optimum~~ optimizing fuel flow, monitoring an increase in exhaust gas temperature in a plurality of cylinders in the engine as fuel flow is decreased;

upon detecting a first peak temperature in a first cylinder, identifying the first cylinder on a display, the display showing a graphical representation of measured exhaust gas temperature for each cylinder in the engine;

monitoring the exhaust gas temperature to detect subsequent peak temperatures, the exhaust gas temperatures being monitored dependent on fuel flow after the first cylinder has been identified; and

detecting an optimum fuel flow has been reached and providing an indication on the display.

2. (Original) The method of claim 1 further comprising the steps of:

upon detecting an increase in the fuel flow after identifying the first cylinder, monitoring the exhaust gas temperature of the first cylinder;

upon detecting the exhaust gas temperature in the first cylinder has reached the second peak temperature, monitoring the exhaust gas temperature of the first cylinder until the exhaust gas temperature is below a temperature range of the second peak temperature; and

indicating on the display that the fuel flow for best power has been reached.

3. (Original) The method of claim 2 wherein the temperature range is within best power limits of the engine below the second peak temperature.

4. (Original) The method of claim 3 wherein upon detecting that the exhaust gas temperature is below an upper best power limit temperature of the second peak temperature, indicating on the display that the fuel flow is rich of peak.

5. (Original) The method of claim 1 further comprising the steps of:

upon detecting a decrease in the fuel flow after identifying the first cylinder, monitoring the exhaust gas temperature of the other cylinders;

upon detecting the exhaust gas temperature in a last cylinder has reached a last peak temperature, monitoring the exhaust gas temperature of the last cylinder until the exhaust gas temperature is below a temperature range of the last peak temperature; and

indicating on the display that the fuel flow for best economy has been reached.

6. (Original) The method of claim 5 wherein the temperature range is within best economy limits of the engine below the last cylinder peak temperature.

7. (Original) The method of claim 6 wherein upon detecting that the exhaust gas temperature is below a lower best economy limit of the last cylinder peak temperature, indicating on the display that the fuel flow is too lean.

8. (Original) The method of claim 1 wherein the display includes a numeric representation of the exhaust gas temperature for each cylinder.

9. (Original) The method of claim 8 wherein the resolution of the numeric representation is one degree Fahrenheit.

10. (Currently Amended) An engine status display system comprising:

a computer executed lean assist routine which (a) upon receiving a request for ~~setting the optimum~~ optimizing fuel flow, monitors an increase in exhaust gas temperature in a plurality of cylinders in the engine as fuel flow is decreased, and (b) upon detecting a first peak temperature in a first cylinder, identifies the first cylinder on a display and monitors the exhaust gas temperature to detect subsequent peak temperatures, the exhaust gas temperature being monitored dependent on the fuel flow provided after the first cylinder has been identified; and

a display which shows a graphical representation of measured exhaust gas temperature for each cylinder in the engine and provides an indication that an optimum fuel flow has been detected by the lean assist routine.

11. (Original) The display system of claim 10 wherein the lean assist routine further comprises:

(c) upon detecting an increase in the fuel flow after identifying the first cylinder, monitors the exhaust gas temperature of the first cylinder;

(d) upon detecting the exhaust gas temperature in the first cylinder has reached the second peak temperature, monitors the exhaust gas temperature of the first cylinder until the exhaust gas temperature is below a temperature range of the second peak temperature; and

(e) indicates on the display that the fuel flow for best power has been reached.

12. (Original) The display system of claim 11 wherein the temperature range is within best power limits of the engine below the second peak temperature.

13. (Original) The display system of claim 12 wherein upon detecting that the exhaust gas temperature is below an upper best power limit temperature, indicating on the display that the fuel flow is rich of peak.

14. (Original) The display system of claim 10 further comprising the steps of:

upon detecting a decrease in the fuel flow after identifying the first cylinder, monitoring the exhaust gas temperature of the other cylinders;

upon detecting the exhaust gas temperature in a last cylinder has reached a last peak temperature, monitoring the exhaust gas temperature of the last cylinder until the exhaust gas temperature is below a temperature range of the last peak temperature; and

indicating on the display that the fuel flow for best economy has been reached.

15. (Original) The display system of claim 14 wherein the temperature range is within the best economy limits of the engine below the last cylinder peak temperature.

16. (Original) The display system of claim 15 wherein upon detecting that the exhaust gas temperature is below a lower best economy limit, indicating on the display that the fuel flow is too lean.

17. (Original) The display system of claim 10 wherein the display includes a numeric representation of the exhaust gas temperature for each cylinder.

18. (Original) The display system of claim 17 wherein the resolution of the numeric representation is one degree Fahrenheit.

19. (Currently Amended) An apparatus for ~~setting an optimum~~ optimizing fuel flow for an engine comprising:

upon receiving a request for setting the optimum fuel flow, means for monitoring an increase in exhaust gas temperature in a plurality of cylinders in the engine as fuel flow is decreased;

upon detecting a first peak temperature in a first cylinder, means for identifying the first cylinder on a display, the display showing a graphical representation of measured exhaust gas temperature for each cylinder in the engine;

means for monitoring the exhaust gas temperature to detect subsequent peak temperatures, the exhaust gas temperatures being monitored dependent on fuel flow after the first cylinder has been identified; and

means for detecting an optimum fuel flow has been reached and providing an indication on the display.

20. (Currently Amended) A computer program product for ~~setting an optimum~~ optimizing fuel flow for an engine, the computer program product comprising a computer usable medium having computer readable code thereon, including program code which:

upon receiving a request for ~~setting an optimum~~ optimizing fuel flow, monitoring an increase in exhaust gas temperature in a plurality of cylinders in the engine as fuel flow is decreased;

upon detecting a first peak temperature in a first cylinder, identifying the first cylinder on a display, the display showing a graphical representation of measured exhaust gas temperature for each cylinder in the engine;

monitoring the exhaust gas temperature to detect subsequent peak temperatures, the exhaust gas temperatures being monitored dependent on fuel flow after the first cylinder has been identified; and

detecting an optimum fuel flow has been reached and providing an indication on the display.